

## Ideal Mini-PC for the more demanding home user

The revolutionary Intel Core i3 / i5 / i7 processors based on Socket 1156 with high computing power and relatively low power consumption are outstandingly suitable for Mini-PCs. With the XPC Barebone SH55J2, Shuttle's product range now includes a model for this processor platform. Despite its compact dimensions it still manages to find space for a PCI-Express slot, DDR3 memory, HDMI interface, Gigabit LAN, 8-channel audio with S/PDIF out and an array of interfaces. With an 80-PLUS-certified 300W power supply and effective Heatpipe cooling system, the SH55J2 keeps cool under the toughest conditions.

**xpc** Barebone  
**SH55J2**



## Feature Highlight

<b>J2 chassis</b>	<ul style="list-style-type: none"> <li>Black J2 chassis with aluminum cover</li> <li>Bays: 1x 5.25" external, 2x 3.5" internal</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>Socket 1156</li> <li>Supports Core i3 / i5 / i7 (TDP max. 95W)</li> <li>Shuttle I.C.E. Heat-pipe cooling system</li> </ul>
<b>Slots</b>	<ul style="list-style-type: none"> <li>1x PCI-Express x16 (v2.0), 1x PCI</li> <li>Supports dualslot graphics cards</li> </ul>
<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel H55 Express PCH</li> </ul>
<b>Integrated Graphics</b>	<ul style="list-style-type: none"> <li>Optional Intel HD graphics integrated in the Core i3 / i5 processor</li> <li>Supports DirectX 10, OpenGL 2.1</li> <li>Output: VGA and HDMI (HDCP, 1080p)</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>Supports 4x DDR3-1066/1333 (1600 OC)</li> <li>Up to 16 GBytes total size</li> </ul>
<b>Drive connectors</b>	<ul style="list-style-type: none"> <li>4x SATA (internal)</li> <li>1x External SATA (front)</li> <li>4-in-1 card reader</li> </ul>
<b>Other connectors</b>	<ul style="list-style-type: none"> <li>7.1-ch HD-audio, SPDIF output</li> <li>GigaBit LAN</li> <li>USB 2.0 (2x front, 4x rear, 4x onboard) One front USB port is shared with eSATA</li> </ul>
<b>Power supply</b>	<ul style="list-style-type: none"> <li>300 Watt mini power supply (80 PLUS)</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>Home-Media</li> </ul>

## Shuttle XPC Barebone SH55J2 – Special Product Features



### The new J-Chassis: a clean and modern look

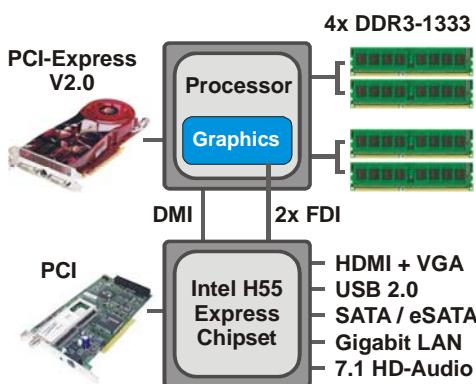
Shuttle has always placed great emphasis on the interior and exterior aesthetics of the XPC, with the belief that a good blend of style and form factor allows the XPC to be attractive, versatile, and work well in almost any environment - whether the living room, bedroom, or office. With the new J Series, Shuttle retains its trademark appearance and adds a clean, modern look to the front of the XPC. The new J Series will also be the first to bear the new XPC logo, featuring a striking "X" mark to signify the evolution of the XPC product line.

### Small, but easy to install

Shuttle's XPCs offer the power of a desktop PC in a form factor one-third the size while using standard desktop components. Shuttle kept the concept of "future proofing" in mind when it designed the new J Series. The meticulously designed layout features an interior cable management system with pre-installed cables that are routed and tied down at factory to reduce clutter, increase airflow, and ease component installation. Shuttle has developed the ease of installation to an Art of Perfection.

### Supports the Intel Core i3/i5 32nm Clarkdale Processor

"Clarkdale" is the codename for Intel's dual-core processors derived from the Nehalem/Westmere architecture. The processor package contains two dies, the actual 32 nm processor with the I/O connections and the 45 nm graphics controller with the memory interface. This means, that the platform's northbridge component was relocated to the CPU package. Thanks to Hyper-Threading the Dual Core i3/i5 (except i5-750) shows four threads in the Task Manager. Core i5-6xx CPU's feature the ability to Turbo Boost two multiplier levels above their rated speed in certain scenarios. The Core i7 processor (45nm Lynnfield, without graphics core) is also supported. Please refer to the support list for detailed processor support information.



### Single-Chip Chipset: Intel H55 Express

The design of the new Core i3/i5 processors will eliminate the need for the traditional Northbridge found on previous generation of mainboards. Thus, the Shuttle SH55J2 sports Intel's H55 Express Platform Controller Hub (PCH) from the Intel 5-Series "Ibexpeak" family, which will integrate the hard drive controller, network controllers, monitor physical interfaces, PCI controller and other input/output functionalities.



### Integrated Cooling Engine (I.C.E.)

Shuttle's XPCs offer the power of a desktop PC in a form factor one-third the size. In order to ensure proper airflow inside a smaller unit, more advanced cooling technologies have been developed and implemented in the Shuttle XPC. Shuttle's industry-leading I.C.E. heatpipe technology delivers efficient cooling and is exceptionally quiet.



### What does Barebone mean?

The Shuttle XPC Barebone SH55J2 consists of a stylish case with pre-installed mainboard, power supply unit (PSU) and cables. Despite its small form factor it offers outstanding connectivity, functionality and performance. For a complete PC system you still need a few components. The XPC is completely customizable, users can pick the processor, memory, storage and expansion options that fit their needs. Sometimes a discrete graphics card is needed.



### Supports Dual-Slot Graphics Cards

Despite the small housing, the SH55J2 is capable of running dual-slot (double-width) PCI Express graphics cards. Please refer to the support list for detailed support information. Note, that the integrated graphics will be disabled, while using a discrete graphics card.



### Supports one optical drive and two hard disks

Furthermore, users can install one optical drive and up to two hard disks into the SH55J2. But what about heat? Many of the clever design elements of the XPC get little attention. For example, the drive rack built into the SH55J2 leaves space between the hard disks to improve air flow. Intelligently-engineered airflow mechanics channels cool air to where it's needed most - protecting components and providing optimal performance.



### Built-in Intel® HD Graphics Engine

The Intel Core i3/i5 processors integrate the Intel® HD Graphics engine which supports full 1080p high-definition video playback, including Blu-ray disc movies. This powerful video engine provides users with a rich, new media experience to deliver smooth HD playback without the need for add-in video cards or decoders. It features Intel® Clear Video Technology, a combination of video processing hardware and software technologies designed to enhance the visual experience. In addition to video, the optimized 3D graphics engine supports DirectX 10, Shader Model 4.0 and OpenGL 2.1 and delivers the performance and compatibility you need for entertaining, everyday gameplay for the most popular game titles.



### Dual View Technology with HDMI (DVI) and VGA

Dual View technology offers multiple display support on up to two separate monitors. This improves the capabilities and productivity of the user by allowing them to spread multiple windows over two monitors and view them simultaneously. The integrated Intel graphics processor delivers best-in-class 3D performance and leading graphics compatibility to play top games the way they are meant to be played.



#### PCI-Express V2.0 for high-performance graphics cards

The Shuttle XPC Barebone SH55J2 is equipped with one PCI-Express x16 Version 2.0 slot delivering a bandwidth of up to 16GB/s, twice the speed of PCI-E 1.0, thus providing plenty of potential for the newest graphics cards. It is downward compatible, allowing use for most of the present graphics cards as well.

#### 80 PLUS® Certified Power Supplies

The 80 PLUS® performance specification requires power supplies in computers and servers to be 80% or greater energy-efficient. The Shuttle XPC Barebone SH55J2 features a powerful 300W power supply with 80 PLUS® validation as standard. The power supplies of the J chassis series use a 50mm cooling fan providing the same airflow, but spins slower than previous 40mm models to make the system run even more quietly.

#### Supports up to 16GB of memory

This Shuttle XPC supports up to 16GB DDR3-1333 memory which is ideal for workstations powered by 64-bit operating systems, enabling users to take full advantage of high-performance configurations.

#### Mini-ITX Mainboard Support

Shuttle expands the capabilities of its chassis, adding support for Mini-ITX mainboards (17 x 17cm or 6.7 x 6.7 inches). Now, for the first time, the Shuttle chassis can go beyond the Shuttle mainboard, so you can easily upgrade or downgrade the mainboard to your desire, without any modifications to the chassis.

## Shuttle XPC Barebone SH55J2 Specifications

<b>Chassis</b>	J2-type, color: black Case cover made of aluminum, body made of steel storage bays: 1 x 5.25" (external), 2 x 3.5" (internal) Front door for I/O ports / card reader and optical drive Kensington Security Slot at the back panel (also called a K-Slot or Kensington lock) as a part of an anti-theft system Dimensions: 33 x 21,5 x 19 cm (LWH), 13.5 litres Weight: 7.0 kg net / 7.8 kg gross Compatible with Mainboards in Shuttle or Mini-ITX Form Factor
<b>Mainboard and Chipset</b>	Shuttle FH55, Shuttle form factor, proprietary design for XPC SH55J2 Chipset: Intel® H55 Express (Codename: Ibex Peak, 65nm process) Platform Controller Hub (PCH) as Single-Chip-Solution
<b>BIOS</b>	AMI BIOS, SPI Interface, 16MBit Flash-ROM Supports PnP, ACPI 3.0 Supports boot up from external USB flash memory
<b>Power Supply</b>	300 Watt mini PSU, AC input voltage: 100~240V 80 PLUS® certified (80% or greater energy-efficient) Active PFC circuit (Power Factor Correction) ATX main power connectors: 2x10 and 2x2 pins
<b>Processor Support</b>	Socket 1156 supports Intel Core i3 / i5 /i7 processors Supports Intel QuickPath Interconnect (QPI) at 4.8 and 6.4 GT/s Supports maximum TDP = 95W (power consumption) The Processor integrates PCI-Express and memory controller ' and the graphics engine as an option. Please refer to the support list for detailed processor support information.
<b>Processor Cooling</b>	Shuttle I.C.E. (Integrated Cooling Engine) advanced I.C.E. Heatpipe technology, linear controlled 92mm fan SilentX cooling and noise reduction technology with Active Airflow
<b>Memory Support</b>	4 x 240 pin slots Supports DDR3-1066/1333 SDRAM memory (PC3-8500/10600) Supports DDR3-1600 (PC3-12800) in overclocking mode *) Supports 2+2 Dual Channel mode Supports max. 4 GB per DIMM, maximum total size of 16 GB
<b>Integrated graphics</b>	The Intel Core i3/i5 32nm Clarkdale processor integrates the Intel® HD Graphics engine with Flexible Display Interface (FDI) Resolution max. 1920 x 1200 (supports 720p, 1080i und 1080p) Decodes MPEG-2, H.264 and VC-1 in hardware (supports Blu-ray) Supports DirectX 10, OpenGL 2.1, Shader 4.0 Supports Dual-Independent-Display via HDMI and VGA port

<i>Expansion Slots</i>	1x PCI-Express v2.0 slot (PEG, for graphics cards only) 1x PCI 32 bit slot Supports Dual-slot (double-width) graphics cards - in this case the PCI slot will be occupied. If a discrete graphics card is used, the onboard graphics will be deactivated.
<i>8-channel Audio</i>	7.1 channel High Definition Audio with Realtek ALC888 codec Azalia standard support Analog: line-out (8-ch), line-in, microphone, AUX (onboard) Digital: optical S/PDIF-out, also via HDMI output
<i>Gigabit-LAN Controller</i>	Realtek RTL 8111E Ethernet network controller PCI Express interface IEEE 802.3u 1000Base-T compliant Supports 10 / 100 / 1.000 MBit/s operation Supports Wake-on-LAN (WOL) Drive connectors
<i>Drive connectors</i>	4x Serial ATA (3 Gbit/s) 2x External Serial ATA (3 Gbit/s, 1x front, 1x rear)
<i>Front panel connectors and buttons</i>	Microphone input Headphone output USB 2.0 eSATA / USB 2.0 combo port 4-in-1 Card Reader Power button Power indicator (white LED) HDD/ODD indicator (blue LED)
<i>Back panel connectors</i>	HDMI (digital video out with digital audio, DVI via adapter) D-Sub VGA (analog video out) 4x USB 2.0 GigaBit LAN (RJ45) 8-ch Audio line-out (2x rear/front, bass/center, surround/back) Audio Line-in Digital Audio: optical S/PDIF output Clear CMOS button
<i>Other connectors</i>	4x USB 2.0 (two sets with 2x5 pins) 2x fan connectors ( 4 pins and 3 pins) LPC port **)
<i>Accessories</i>	Multilanguage XPC Installation Guide 32/64bit driver disk for Windows XP/Vista/7 Preinstalled cables: 2x SATA, Power Cord Screws Heatsink Compound

### Certifications Compliance

EMI: FCC, CE, BSMI, C-Tick  
Safety: ETL, CB, BSMI, TÜV  
Other: RoHS, Eup Lot6, Energy Star 5.0Conformity

### \*) Overclocking Warning

Please note there is a certain risk involved with overclocking, including adjusting the setting in the BIOS or using third-party overclocking tools. Overclocking may affect your system stability or even cause damage of the components and devices of your system. It is done at your own risk and expense. Shuttle cannot be held responsible for possible damage caused by overclocking.

### \*\*) Optional slot bracket adapter for serial and parallel ports

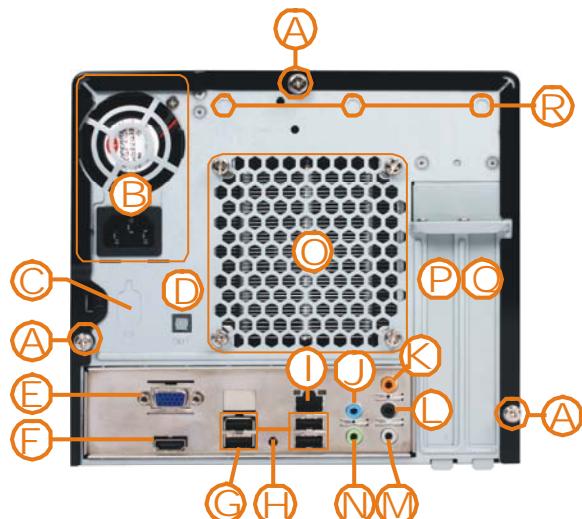
You can install an optional slot bracket adapter which can be used to provide one serial and one parallel port at the back panel. The cable of this adapter will be connected to the onboard LPC port and one expansion slot (PCI or PCI Express) will be occupied by the adapter.

## Shuttle XPC Barebone SH55J2 – Connectors and Components

**Front Panel**



**Back Panel**



- 1 Bay for optical drive
- 2 Eject button
- 3 Power switch, Power LED
- 4 4-in-1 card reader
- 5 USB 2.0 port
- 6 Microphone input
- 7 Headphone output
- 8 eSATA+USB combo port

- A Three thumbscrews
- B Power supply with fan and AC power socket
- C Optional serial port
- D S/PDIF output
- E VGA video port
- F HDMI video port
- G 4x USB 2.0 ports
- H Clear CMOS button
- I Gigabit LAN port (RJ45)

- J Audio Line-in
- K Audio Center/Bass
- L Audio Surround-Back
- M Audio Surround-Side
- N Audio Surround-Front
- O Heat pipe cooling fan
- P PCI-Express x16 slot
- Q PCI slot
- R Optional WLAN